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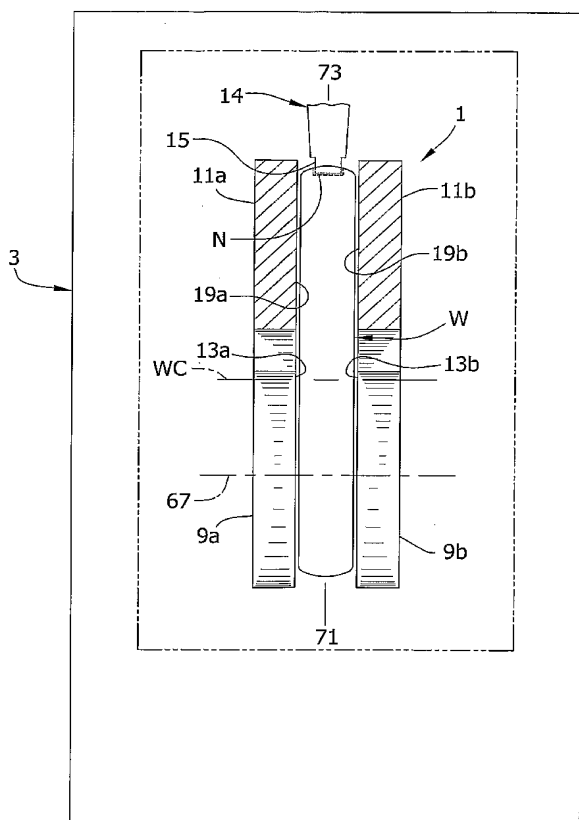
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(54) Title: **WAFER CLAMPING DEVICE FOR A DOUBLE SIDE GRINDER**



(57) Abstract: A hydrostatic pad for use in holding a semicon-
ductor wafer during grinding of the wafer by grinding wheels.
The pad includes hydrostatic pockets formed in a face of the body
directly opposed to the wafer. The pockets are adapted for re-
ceiving fluid through the body and into the pockets to provide a
barrier between the body face and the workpiece while still ap-
plying pressure to hold the workpiece during grinding. The hy-
drostatic pads allow the wafer to rotate relative to the pads about
their common axis. The pockets are oriented to reduce hydro-
static bending moments that are produced in the wafer when the
grinding wheels shift or tilt relative to the hydrostatic pads, help-
ing prevent nanotopology degradation of surfaces of the wafer
commonly caused by shift and tilt of the grinding wheels.

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